

ARGUMENT

Claims 1-34 are pending in the application.

§101 Rejection

Claims 27-34 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Specifically, the claims were objected to as possibly covering a carrier wave. Accordingly, claims 27, 30-34 have been amended to call for a tangible computer readable medium which would exclude a carrier wave. Accordingly, the applicant believes the section 101 rejection has been addressed and should be withdrawn.

§102(e) Rejection

Claims 1 -34 are rejected under 35 U.S.C. §102(e) as being anticipated by Shiomi et al., U.S. Publication number 2006 0095919 A1 (“Shiomi”). Shiomi describes a Java middleware unit 33 which includes a virtual machine (VM, element 33a in Fig. 15), an application managing unit (element 33b in Fig. 15) and a class library storing unit (element 33c in Fig. 15). It also has an OS unit 34 that has a kernel (element 34a) and a hardware unit that has a CPU (element 35a).

In order to anticipate as claim, all the elements of the claim must be found in a single reference. On first glance, the Shiomi reference looks similar to the pending claims. Only upon close analysis do the distinctions between the pending claims and the Shiomi reference become apparent.

CLAIM 1

In all of the pending independent claims, a determination is made whether a process is a kernel process or an application process. In the specification, some description is given as to what is a kernel process and what is an application process. On page 8, lines 2-5 describe kernel processes and application processes.

The user process 206, such as a user level application program interface (“API”), is called from the user level 202, while the kernel process 208, such as a driver, is called from the kernel level.

In Shiomi, the Virtual Machine controls the execution of the application and the kernel. The kernel is described in Shiomi as follows:

The kernel 34a manages resources provided to applications, in units of tasks corresponding to the applications. Specifically, the kernel 34a generates a task corresponding to an application and the first thread of the task in response to an instruction

from the application managing unit 33b, and reserves resources necessary for the operation of the VM unit 33a using the first thread. The kernel 34a also generates threads required by the application, provides resources required by the application using the generated threads, and holds resource names of the provided resources and a task ID of a task to which the threads belong, in correspondence. When notified by the application managing unit 33a of a task ID corresponding to an application which is completed, the kernel 34a collects all resources specified by resource names held in correspondence with the notified task ID.

Comparing the kernel in Shiomi with its virtual machine middle layer to the kernel as claimed is like comparing apples to oranges. The kernels just are not the same. The kernel in Shiomi is a specialized kernel. With the virtual machine in Shiomi, traditional kernel tasks are lumped right together with application threads that are sent on to the processor which makes sense considering the function of the virtual machine. In the pending claims, the kernel is a standard kernel as understood by one skilled in the art, not the specialized kernel from Shiomi. As such, just looking at the words, Shiomi appears to be an anticipatory reference, but on closer inspection, Shiomi is discussing a different kernel.

Related, as the kernel in Shiomi is doing much more than the kernel in the pending claims, the claimed element of determining whether a process is a kernel process or a user process is not found in Shiomi. In Shiomi, the line between what is a user process and what is a kernel process is fuzzy, at best.

The Figures and paragraphs that were cited to anticipate the element of determining whether a process is a kernel process or a user process do not disclosed the claimed element of determining whether a process is a kernel process or a user process. Elements 33a and 33b of Fig. 15 are the previously described VM unit and the Application Managing Unit which are part of the Java Middleware Unit. None of these elements disclose making a determination between a kernel process and a user process as claimed.

In addition, the Office action cites to paragraphs 161, 162 and 163 for anticipating this element. Paragraph 161 discloses the library unit performing resource management. The problem is that the task ID does not make a determination of whether a process is a kernel process or a user process. Paragraph 162 discloses using a special thread to reserve necessary resources. Again, there is no disclosure of making a determination whether a thread is a user thread or a kernel thread. Paragraph 163 talks about using the special threads to reserve

resources for the VM unit, but again, does not disclose making a determination of whether a process is a kernel process or a user process.

The element of making a determination as to whether a process is a user process or a kernel process is not insignificant. One of the goals of the pending application and claims is to cover allocating kernel processes which are normally thought of as overhead. By making the separation from kernel processes to user processes, the ability to track the cost of kernel processes is now possible.

As claims 2- 7 are dependent on claim 1 and an element is missing from claim 1, this element is missing from claims 2-7 and claims 2-7 also are not anticipated.

CLAIM 8

In regard to claim 8, the language is a little different, but the result is the same. In claim 8, the method calls for determining whether the process is a first defined process or a second defined process. Again, Shiomi does not make such a determination. The Office action sites to the same sections of Shiomi for disclosing this element. The Applicant refers to the previous paragraphs for a discussion of the cited sections and the failure to disclose the element of making the determination of the type of process.

As claims 9-13 are dependent on claim 8 and an element is missing from claim 8, this element is missing from claims 9-13 and claims 9-13 also are not anticipated.

CLAIM 14

Claim 14 calls for saving a tag to identify the kernel resources allocated to the user process. Similar to claim 1, Shiomi does not make a determination between pure kernel processes and user processes so Shiomi cannot determine the kernel resources allocated to the user process. As claims 15-20 are dependent on claim 14 and an element is missing from claim 14, this element is missing from claims 15-20 and claims 15-20 also are not anticipated.

CLAIM 21

Claim 21 calls for identifying a type of the kernel resources allocated to the process indicated by the selected tag. Similar to claim 1, Shiomi does not identify a type of kernel resource allocated to the process. Shiomi does not separate the types of processes. As claims 22-24 are dependent on claim 21 and an element is missing from claim 21, this element is missing from claims 22-24 and claims 22-24 also are not anticipated.

CLAIM 25

Claim 25 calls for a flag to indicate whether the process is a first defined process or a second defined process. Again, Shiomi does not make such a determination or use such a flag. The Office action sites to the same sections of Shiomi for disclosing this element. The Applicant refers to the previous paragraphs for a discussion of the cited sections and the failure to disclose the element of making the determination of the type of process. As claim 26 is dependent on claim 25 and an element is missing from claim 25, this element is missing from claim 26 and claim 26 also is not anticipated.

CLAIM 27

Claim 27 calls for a data structure with a first field identifying user processes and a second field identifying kernel resources allocated to the user processes. Similar to claim 1, as Shiomi does not differentiate between user processes and kernel processes as called for in the claims, this element is missing. As claims 28-29 are dependent on claim 27 and an element is missing from claim 27, this element is missing from claims 28-29 and claims 28-29 also are not anticipated.

CLAIM 30

Claim 30 calls for determining whether the process is a kernel process or a user process. Similar to claim 1, as Shiomi does not differentiate between user processes and kernel processes as called for in the claims, this element is missing. As an element in the claims is not in Shiomi, the claim is not anticipated.

CLAIM 31

Claim 31 calls for determining whether the process is a first defined process or a second defined process. Similar to claim 1, as Shiomi does not differentiate between a first process and a second process as called for in the claims, this element is missing. As an element in the claims is not in Shiomi, the claim is not anticipated.

CLAIM 32

Claim 32 calls for tagging user processes that are allocated with kernel resources. Similar to claim 1, as Shiomi does not differentiate between user processes and kernel processes as called for in the claims, this element is missing. As an element in the claims is not in Shiomi, the claim is not anticipated.

CLAIM 33

Claim 33 calls for identifying an amount of kernel resources allocated to a process indicated by a selected tag. Similar to claim 1, as Shiomi does not differentiate between user processes and kernel processes as called for in the claims, this element is missing. As an element in the claims is not in Shiomi, the claim is not anticipated.

CLAIM 34

Claim 34 calls for a flag indicating whether the process is a first defined process or a second defined process. Similar to claim 1, as Shiomi does not differentiate between a first process and a second process as called for in the claims, this element is missing. As an element in the claims is not in Shiomi, the claim is not anticipated.

REMARKS

In view of the above amendment, applicant believes the pending application is in condition for allowance. If the Examiner has any questions or suggestions, the Examiner is encouraged to call the applicant direct at 312-474-6610.

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Respectfully submitted,

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